



**BRUHATH BANGALORE MAHANAGARA PALIKE
EXECUTIVE ENGINEER
BYATARAYANAPURA DIVISION**

MEASUREMENT SHEETS

Name of Work: Construction of Drain from Chikkasidappa Layout to SWD in Amruthahalli in Ward No 07 Byatarayanapura.

Estimate Cost:- 70.00Lakhs

BRUHAT BANGALORE MAHANAGARA PALIKE

Executive Engineer, Byatarayanapura Division

Name of Work: Construction of Drain from Chikkasidappa Layout to SWD in Amruthahalli in Ward No 07
Byatarayanapura

Measurement Sheet

1st & Final Bill

Name of Agency: KRIDL

Item No.	1								
Item Name:	KSRRB 300-1. Earthwork excavation by manual means for roads, drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3								
SL NO	CHAINAGE	NO	L (m)	B1 (m)	Avg B (m)	Avg D (m)	QTY	REMARKS	
Measurement Recorded On:									
For RCC Drain									
After the Culvert									
	7.70	15.00	1	7.30	2.80	2.80	2.80	57.23	
	15.00	30.00	1	15.00	2.80	2.80	2.80	117.60	
	30.00	32.60	1	2.60	2.80	2.80	2.80	20.38	
	32.60	47.60	1	15.00	2.80	2.80	2.80	117.60	
	47.60	62.60	1	15.00	2.80	2.80	2.80	117.60	
	62.60	68.40	1	5.80	2.80	2.80	2.80	45.47	
	68.40	83.40	1	15.00	2.80	2.80	2.80	117.60	
	83.40	98.40	1	15.00	2.80	2.80	2.80	117.60	
	98.40	115.60	1	17.20	2.80	2.80	2.80	134.85	
	115.60	119.20	1	3.60	2.80	2.80	2.80	28.22	
	Total Quantity						874.16	Cum	
	Quantity Carried to Summary						874.16	Cum	

Contractor Representative

Asst Engineer

Ward No.07

BBMP

Asst. Executive Engineer
Kodigehalli Sub Division
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.
Bangalore.

BRUHAT BANGALORE MAHANAGARA PALIKE

Executive Engineer, Byatarayanapura Division

Name of Work: Construction of Drain from Chikkasidappa Layout to SWD in Amruthahalli in Ward No 07
Byatarayanapura

Measurement Sheet

1st & Final Bill

Name of Agency: KRIDL

Item No.	2								
Item Name:	KSRB 2.8 : Providing and Filling in foundation with granite / trap broken metal 100mm. and down size & with approved sand including hand packing, ramming, watering, including cost of all materials and labour with all lead and lift. complete as per specifications. specification. No. KBS 2.10.2								
SL NO	CHAINAGE		NO	L (m)	B1 (m)	Avg B (m)	Avg D (m)	QTY	REMARKS
Measurement Recorded On:									
For RCC Drain									
After the Culvert									
	7.70	15.00	1	7.30	2.80	2.80	0.45	9.20	
	15.00	30.00	1	15.00	2.80	2.80	0.45	18.90	
	30.00	32.60	1	2.60	2.80	2.80	0.45	3.28	
	32.60	47.60	1	15.00	2.80	2.80	0.45	18.90	
	47.60	62.60	1	15.00	2.80	2.80	0.45	18.90	
	62.60	68.40	1	5.80	2.80	2.80	0.45	7.31	
	68.40	83.40	1	15.00	2.80	2.80	0.45	18.90	
	83.40	98.40	1	15.00	2.80	2.80	0.45	18.90	
	98.40	115.60	1	17.20	2.80	2.80	0.45	21.67	
	115.60	119.20	1	3.60	2.80	2.80	0.45		
Total Quantity								140.49	
Quantity Carried to Summary								140.49	

Contractor Representative

Asst Engineer
Ward No.07
BBMP

Asst. Executive Engineer
Kodigehalli Sub Division
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

BRUHAT BANGALORE MAHANAGARA PALIKE

Executive Engineer, Byatarayanapura Division

Name of Work: Construction of Drain from Chikkasidappa Layout to SWD in Amruthahalli in Ward No 07
Byatarayanapura

Measurement Sheet

1st & Final Bill

Name of Agency: KRIDL

Item No.	3								
Item Name:	KSRB 4-1.3 : Providing and laying in position plain cement concrete of Mix 1:4:8 with OPC @ 180kgs, with 40mm and down size graded granite metal coarse aggregates @0.85cum and fine aggregates @ 0.57cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2								

SL NO	CHAINAGE	NO	L (m)	B1 (m)	Avg B (m)	Avg D (m)	QTY	REMARKS
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Measurement Recorded On: 14/03/20219, 15/03/2019

For RCC Drain

After the Culvert

	7.70	15.00	1	7.30	2.80	2.80	0.15	3.07	
	15.00	30.00	1	15.00	2.80	2.80	0.15	6.30	
	30.00	32.60	1	2.60	2.80	2.80	0.15	1.09	
	32.60	47.60	1	15.00	2.80	2.80	0.15	6.30	
	47.60	62.60	1	15.00	2.80	2.80	0.15	6.30	
	62.60	68.40	1	5.80	2.80	2.80	0.15	2.44	
	68.40	83.40	1	15.00	2.80	2.80	0.15	6.30	
	83.40	98.40	1	15.00	2.80	2.80	0.15	6.30	
	98.40	115.60	1	17.20	2.80	2.80	0.15	7.22	
	115.60	119.20	1	3.60	2.80	2.80	0.15	1.51	
	Total Quantity							46.83	
	Quantity Carried to Summary							46.83	

Contractor Representative

Asst Engineer

Ward No.07

BBMP

Asst. Executive Engineer

Assistant Executive Engineer

Kodigehalli Sub Division

Kodigehalli Sub Division

Yelahanka Zone, B.B.M.P.

Bangalore.

BRUHAT BANGALORE MAHANAGARA PALIKE

Executive Engineer, Byatarayanapura Division

Name of Work: Construction of Drain from Chikkasidappa Layout to SWD in Amruthahalli in Ward No 07 Byatarayanapura

Measurement Sheet

1st & Final Bill

Name of Agency: KRIDL

Item No.	4								
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Item Name:

KSRB 4-6.1 : Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications. Specification No. KBS 4.6.2

SL NO	CHAINAGE	NO	L (m)	B1 (m)	Avg B (m)	Avg D (m)	QTY	REMARKS
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Measurement Recorded On:

Raft

For RCC Drain

After the Culvert

	7.70	15.00	2	7.30		0.30	4.38	
	15.00	30.00	2	15.00		0.30	9.00	
	30.00	32.60	2	2.60		0.30	1.56	
	32.60	47.60	2	15.00		0.30	9.00	
	47.60	62.60	2	15.00		0.30	9.00	
	62.60	68.40	2	5.80		0.30	3.48	
	68.40	83.40	2	15.00		0.30	9.00	
	83.40	98.40	2	15.00		0.30	9.00	
	98.40	115.60	2	17.20		0.30	10.32	
	115.60	119.20	2	3.60		0.30	2.16	

Total Quantity

66.90

Quantity Carried to Summary

66.90

Assistant Executive Eng
Kodigehalli Sub Divis
Yelahanka Zone, B.B.M.P
Bangalore

Contractor Representative

Asst Engineer
Ward No.07
BBMP

Asst Executive Engineer
Kodigehalli Sub Division
Yelahanka Zone, B.B.M.P
Bangalore

BRUHAT BANGALORE MAHANAGARA PALIKE

Executive Engineer, Byatarayanapura Division

Name of Work: Construction of Drain from Chikkasidappa Layout to SWD in Amruthahalli in Ward No 07 Byatarayanapura

Measurement Sheet

1st & Final Bill

Name of Agency: KRIDL

Item No.	5								
Item Name:	KSRB 4-6.4 : Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses, plinth cills and string courses cost of all materials, labour complete as per specifications. Specification No. KBS 4.6.2								

SL NO	CHAINAGE	NO	L (m)	B1 (m)	Avg B (m)	Avg D (m)	QTY	REMARKS
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Measurement Recorded On:

Wall

For RCC Drain

After the Culvert

	7.70	15.00	4	7.30		3.70	108.04	
	15.00	30.00	4	15.00		3.70	222.00	
	30.00	32.60	4	2.60		3.70	38.48	
	32.60	47.60	4	15.00		3.70	222.00	
	47.60	62.60	4	15.00		3.70	222.00	
	62.60	68.40	4	5.80		3.70	85.84	
	68.40	83.40	4	15.00		3.70	222.00	
	83.40	98.40	4	15.00		3.70	222.00	
	98.40	115.60	4	17.20		3.70	254.56	
	115.60	119.20	4	3.60		3.70	53.28	
	Total Quantity						1650.20	Sqm
	Quantity Carried to Summary						1650.20	Sqm

Contractor Representative

Asst Engineer
Ward No.07
BBMP

Asst. Executive Engineer
Kodigehalli Sub Division
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore

BRUHAT BANGALORE MAHANAGARA PALIKE

Executive Engineer, Byatarayanapura Division

Name of Work: Construction of Drain from Chikkasidappa Layout to SWD in Amruthahalli in Ward No 07
Byatarayanapura

Measurement Sheet

1st & Final Bill

Name of Agency: KRIDL

Item No.	6								
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Item Name:

Providing and laying cement concrete using 20 mm and down size granite coarse aggregates and fine aggregates of ready mixed concrete (RMC) M20 for R.C.C works laid in 15 cms thick layers and well compacted by vibrating, curing, for foundations & sub-structure works with all lead and lifts etc., complete (exclusive of cost of steel and fabrication charges.)

SL NO	CHAINAGE	NO	L (m)	B1 (m)	Avg B (m)	Avg D (m)	QTY	REMARKS
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Measurement Recorded On: 20-05-2019

Raft

For RCC Drain

After the Culvert

7.70	15.00	1	7.30	2.50	2.50	0.30	5.48	✓
15.00	30.00	1	15.00	2.50	2.50	0.30	11.25	✓
30.00	32.60	1	2.60	2.50	2.50	0.30	1.95	✓
32.60	47.60	1	15.00	2.50	2.50	0.30	11.25	✓
47.60	62.60	1	15.00	2.50	2.50	0.30	11.25	✓
62.60	68.40	1	5.80	2.50	2.50	0.30	4.35	✓
68.40	83.40	1	15.00	2.50	2.50	0.30	11.25	✓
83.40	98.40	1	15.00	2.50	2.50	0.30	11.25	✓
98.40	115.60	1	17.20	2.50	2.50	0.30	12.90	✓
115.60	119.20	1	3.60	2.50	2.50	0.30	2.70	✓

Wall

For RCC Drain

After the Culvert

7.70	15.00	2	7.30	(0.45+0.2)/2	3.70	17.56	✓
15.00	30.00	2	15.00	(0.45+0.2)/2	3.70	36.08	✓
30.00	32.60	2	2.60	(0.45+0.2)/2	3.70	6.25	✓
32.60	47.60	2	15.00	(0.45+0.2)/2	3.70	36.08	✓
47.60	62.60	2	15.00	(0.45+0.2)/2	3.70	36.08	✓
62.60	68.40	2	5.80	(0.45+0.2)/2	3.70	13.95	✓
68.40	83.40	2	15.00	(0.45+0.2)/2	3.70	36.08	✓
83.40	98.40	2	15.00	(0.45+0.2)/2	3.70	36.08	✓
98.40	115.60	2	17.20	(0.45+0.2)/2	3.70	41.37	✓
115.60	119.20	2	3.60	(0.45+0.2)/2	3.70	8.66	✓

Hanch

For RCC Drain

After the Culvert

7.70	15.00	2	7.30	0.30	0.30	0.30	1.31	✓
15.00	30.00	2	15.00	0.30	0.30	0.30	2.70	✓

355.83

355.83

S/NO	CHAINAGE		NO	L	B1	Avg B	Avg D	QTY	REMARKS
				(m)	(m)	(m)	(m)		
	30.00	32.60	2	2.60	0.30	0.30	0.30	0.47	
	32.60	47.60	2	15.00	0.30	0.30	0.30	2.70	
	47.60	62.60	2	15.00	0.30	0.30	0.30	2.70	
	62.60	68.40	2	5.80	0.30	0.30	0.30	1.04	
	68.40	83.40	2	15.00	0.30	0.30	0.30	2.70	
	83.40	98.40	2	15.00	0.30	0.30	0.30	2.70	
	98.40	115.60	2	17.20	0.30	0.30	0.30	3.10	
	115.60	119.20	2	3.60	0.30	0.30	0.30	0.65	
	Total Quantity							371.85	Cum
	Quantity Carried to Summary							371.85	Cum

NIP
DE (L7)
30/10

371.85
30/10
Cum
Cum

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Contractor Representative

Asst Engineer
Ward No.07
BBMP
30/10

Asst. Executive Engineer
Kodigehalli Sub Division
BBMP
Yelahanka Zone, B.B.M.P
Bangalore.
30/10

BRUHAT BANGALORE MAHANAGARA PALIKE

Executive Engineer, Byatarayanapura Division

Name of Work: Construction of Drain from Chikkasiddappa Layout to SWD in Amruthahalli in Ward No 07 Byatarayanapura

Measurement Sheet

1st & Final Bill

Name of Agency: KRIDL

Item No.	7											
Item Name:	KSRB 4.9.2 : Providing T.M.T steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM complete as per specifications. Specification No. KBS 4.6.3 TMT bars Fe 550											

Chainage		Unit	No	Dia in mm	Span	Length of bar	Spacing (m)	Total No. of bars ((6/8)x4)+1	Total Length of bar (m) (7 x 9)	Weight per m	Qty in Kgs (10 x 11)	Remarks
From	To											
1	2	3	4	5	6	7	8.000	9	10	11	12	13
		Tonne										
Premeasurement recorded on:												
for New RCC Drain												
7.70	15.00											
Raft			1	16.00	7.30	2.55	0.120	62.00	158.10	1.58	249.80	
			1	12.00	7.30	2.55	0.150	50.00	127.50	0.89	113.48	
			2	10.00	2.55	7.30	0.120	44.00	321.20	0.62	199.14	
Wall			4	12.00	7.30	4.00	0.120	244.00	976.00	0.89	868.64	
			4	10.00	3.70	7.30	0.120	124.00	905.20	0.62	561.22	
Hanch			2	12.00	7.30	1.20	0.150	98.00	117.60	0.89	104.66	
15.00	30.00											
Raft			1	16.00	15.00	2.55	0.120	126.00	321.30	1.58	507.65	
			1	12.00	15.00	2.55	0.150	101.00	257.55	0.89	229.22	
			2	10.00	2.55	15.00	0.120	44.00	660.00	0.62	409.20	
Wall			4	12.00	15.00	4.00	0.120	501.00	2004.00	0.89	1783.56	
			4	10.00	3.70	15.00	0.120	124.00	1860.00	0.62	1153.20	
Hanch			2	12.00	15.00	1.20	0.150	201.00	241.20	0.89	214.67	
30.00	32.60											
Raft			1	16.00	2.60	2.55	0.120	23.00	58.65	1.58	92.67	

1742.00

6487.11

Chainage		Unit	No	Dia in mm	Span	Length of bar	Spacing (m)	Total No. of bars ((6/8)x4)+1	Total Length of bar (m) (7 x 9)	Weight per m	Qty in Kgs (10 x 11)	Remarks
From	To											
			1	12.00	2.60	2.55	0.150	18.00	45.90	0.89	40.85	
			2	10.00	2.55	2.60	0.120	44.00	114.40	0.62	70.93	
Wall			4	12.00	2.60	4.00	0.120	88.00	352.00	0.89	313.28	
			4	10.00	3.70	2.60	0.120	124.00	322.40	0.62	199.89	
Hanch			2	12.00	2.60	1.20	0.150	36.00	43.20	0.89	38.45	
32.60	47.60											
Raft			1	16.00	15.00	2.55	0.120	126.00	321.30	1.58	507.65	
			1	12.00	15.00	2.55	0.150	101.00	257.55	0.89	229.22	
			2	10.00	2.55	15.00	0.120	44.00	660.00	0.62	409.20	
Wall			4	12.00	15.00	4.00	0.120	501.00	2004.00	0.89	1783.56	
			4	10.00	3.70	15.00	0.120	124.00	1860.00	0.62	1153.20	
Hanch			2	12.00	15.00	1.20	0.150	201.00	241.20	0.89	214.67	
47.60	62.60											
Raft			1	16.00	15.00	2.55	0.120	126.00	321.30	1.58	507.65	
			1	12.00	15.00	2.55	0.150	101.00	257.55	0.89	229.22	
			2	10.00	2.55	15.00	0.120	44.00	660.00	0.62	409.20	
Wall			4	12.00	15.00	4.00	0.120	501.00	2004.00	0.89	1783.56	
			4	10.00	3.70	15.00	0.120	124.00	1860.00	0.62	1153.20	
Hanch			2	12.00	15.00	1.20	0.150	201.00	241.20	0.89	214.67	
62.60	68.40											
Raft			1	16.00	5.80	2.55	0.120	49.00	124.95	1.58	197.42	
			1	12.00	5.80	2.55	0.150	40.00	102.00	0.89	90.78	
			2	10.00	2.55	5.80	0.120	44.00	255.20	0.62	158.22	

1742.00

6487.11

4379.00

16191.93

Chainage		Unit	No	Dia in mm	Span	Length of bar	Spacing (m)	Total No. of bars ((6/8)x4)+1	Total Length of bar (m) (7 x 9)	Weight per m	Qty in Kgs (10 x 11)	Remarks	
From	To												
Wall			4	12.00	5.80	4.00	0.120	194.00	776.00	0.89	690.64		
			4	10.00	3.70	5.80	0.120	124.00	719.20	0.62	445.90		
Hanch			2	12.00	5.80	1.20	0.150	78.00	93.60	0.89	83.30		
68.40	83.40												
Raft			1	16.00	15.00	2.55	0.120	126.00	321.30	1.58	507.65		
			1	12.00	15.00	2.55	0.150	101.00	257.55	0.89	229.22		
			2	10.00	2.55	15.00	0.120	44.00	660.00	0.62	409.20		
Wall			4	12.00	15.00	4.00	0.120	501.00	2004.00	0.89	1783.56		
			4	10.00	3.70	15.00	0.120	124.00	1860.00	0.62	1153.20		
Hanch			2	12.00	15.00	1.20	0.150	201.00	241.20	0.89	214.67		
83.40	98.40												
Raft			1	16.00	15.00	2.55	0.120	126.00	321.30	1.58	507.65		
			1	12.00	15.00	2.55	0.150	101.00	257.55	0.89	229.22		
			2	10.00	2.55	15.00	0.120	44.00	660.00	0.62	409.20		
Wall			4	12.00	15.00	4.00	0.120	501.00	2004.00	0.89	1783.56		
			4	10.00	3.70	15.00	0.120	124.00	1860.00	0.62	1153.20		
Hanch			2	12.00	15.00	1.20	0.150	201.00	241.20	0.89	214.67		
98.40	115.60												
Raft			1	16.00	17.20	2.55	0.120	144.00	367.20	1.58	580.18		
			1	12.00	17.20	2.55	0.150	116.00	295.80	0.89	263.26		
			2	10.00	2.55	17.20	0.120	44.00	756.80	0.62	469.22		
Wall			4	12.00	17.20	4.00	0.120	574.00	2296.00	0.89	2043.44		
			4	10.00	3.70	17.20	0.120	124.00	2132.80	0.62	1322.34		

4379.00

1691.93

3971

30685.21

Chainage		Unit	No	Dia in mm	Span	Length of bar	Spacing (m)	Total No. of bars (((6/8)x4)+1)	Total Length of bar (m) (7 x 9)	Weight per m	Qty in Kgs (10 x 11)	Remarks
From	To											
Hanch			2	12.00	17.20	1.20	0.150	230.00	276.00	0.89	245.64	
115.60	119.20											
Raft			1	16.00	3.60	2.55	0.120	31.00	79.05	1.58	124.90	
			1	12.00	3.60	2.55	0.150	25.00	63.75	0.89	56.74	
			2	10.00	2.55	3.60	0.120	44.00	158.40	0.62	98.21	
Wall			4	12.00	3.60	4.00	0.120	121.00	484.00	0.89	430.76	
			4	10.00	3.70	3.40	0.120	124.00	421.60	0.62	261.39	
Hanch			2	12.00	3.60	0.90	0.150	49.00	44.10	0.89	39.25	
Total Qty in Kgs											31942.10	
Total Quantity											31.94	Tonne
Quantity Carried to Summary											31.94	Tonne

Contractor Representative

16/11/2017
Asst Engineer
Ward No.07
BBMP

16/11/2017
Assistant Executive Engineer
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P
Bangalore.